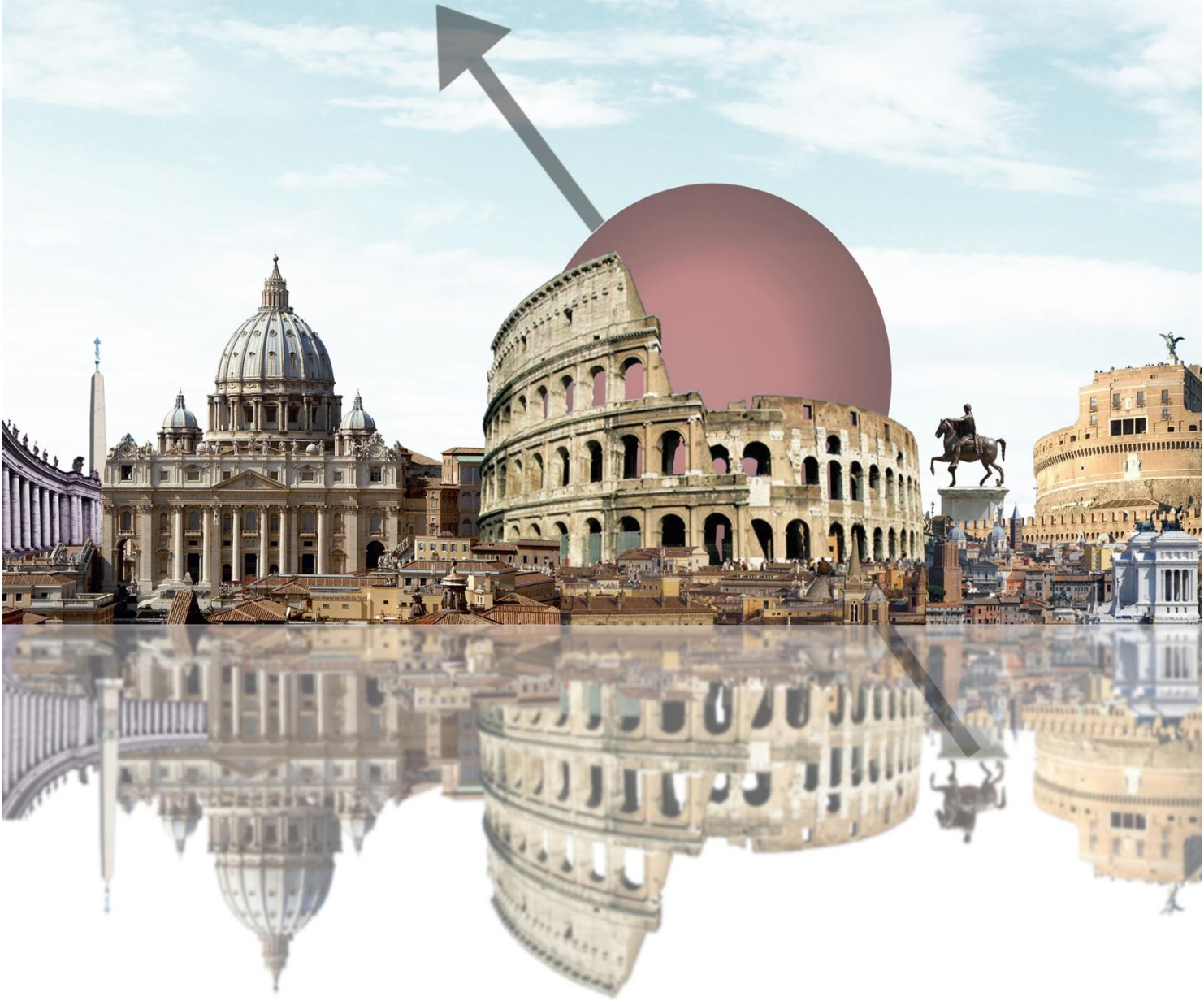
Welcome

to Rome, Italy for the

26th Annual International Conference on

Magnetic Resonance Angiography



2014

Welcome

Dear attendees of the 26th Annual Meeting of the International Magnetic Resonance Angiography Working Group,

As the president of the Working Group, it is my honor and pleasure to welcome you to Rome, Italy, one of the most amazing cities in Europe. Iacopo Carbone and Carlo Catalano, the Program Directors, and their local team of organizers did their utmost to prepare a highly attractive program. This program promotes the spirit of MRA, where dialog and knowledge exchange among basic scientists, clinicians, and industry is enabled, and where students and opinion leaders from both the corporate and academic world meet in a relaxed atmosphere. The meeting will provide a stimulating and unique platform for communication – where new ideas can thrive, where new collaborations can be initiated, and where scientific excellence and achievements will be honored with a range of Awards.

In the name of the Working Group, I would like to thank you for your participation, our friends from the corporate world for their continued and generous support, and the Rome team for the outstanding organization.

I wish you all a most successful and pleasant meeting and close with a quote from Leonardo Da Vinci: “The noblest pleasure is the joy of understanding.”

Matthias Stuber, President 2014.

Carissimi partecipanti al 26° meeting annuale dell’International Magnetic Resonance Angiography Working Group,

Come presidente del Working Group, è per me un onore, oltre che un piacere, darvi il benvenuto a Roma, in Italia, una delle più sorprendenti città d’Europa. Iacopo Carbone e Carlo Catalano, Direttori e responsabili del programma, insieme al loro gruppo di organizzatori in loco, hanno lavorato in modo straordinario per preparare un programma invitante che promuove lo spirito dell’MRA, dove si favorisce il dialogo e lo scambio di conoscenza tra ricerca di base, clinica e industria e dove studenti e professionisti affermati sia nel mondo aziendale che in quello accademico si possono incontrare in un’atmosfera informale. Il meeting offrirà una piattaforma unica e stimolante per la comunicazione – dove si favorisce lo sviluppo di idee nuove, l’inizio di nuove collaborazioni e dove l’eccellenza e i risultati in campo scientifico saranno premiati con una serie di riconoscimenti.

Vorrei ringraziare tutti voi per la vostra partecipazione, i nostri amici delle aziende che sponsorizzano l'evento per il loro contributo continuo e generoso e infine il gruppo di Roma, per l'eccezionale lavoro di organizzazione.

Auguro a tutti voi un proficuo e piacevole meeting e voglio chiudere con una citazione di Leonardo Da Vinci: “Il piacere più nobile è la gioia di comprendere.”

Matthias Stuber, Presidente 2014.

Wednesday September 17th

07:00 **Past Presidents Meeting @ Aula Silvano Zorzi**

Time	Title	Speaker
09:00	**Welcome** **Opening Remarks**	**Stuber, Matthias** **Carbone, Iacopo**
	Session I ***To Contrast or Not to Contrast – Always the question***	
	Chairs	**De Marco, Kevin** **Schneider, Guenther**
09:15	Contrast-enhanced MRA applications in neuroradiology using MultiHance: review of the data from peer-reviewed literature.	Pirovano, Gianpaolo
09:25	The impact of injector based contrast agent administration on bolus shape and MRA image quality.	Jost, Gregore
09:35	A polyrotaxane MRI contrast agent for MR Angiography.	Lu, Zheng-Rong
09:45	Dixon fat saturation MR-angiography compared to standard first pass and high-resolution steady state imaging using a blood pool contrast agent	Homsi, Rami
09:55	Cardiovascular magnetic resonance diagnosis of acute myocarditis: early myocardial gadolinium enhancement evaluation with "Lake Louise consensus" criteria using a single bolus of 0.1 mmol/Kg of a high relaxivity adolinium-based contrast agent.	Gaela, Nicola
10:05	Intraindividual comparison of different contrast agent application schemes and their influence on concentration, signal and bolus geometry.	Kramer, Harald
10:15	Effect of gadolinium-induced susceptibility on first-pass single-echo Dixon CE-MRA.	Stinson, Eric
10:25	Arterial signal intensity following bolus injection of Gd contrast agent.	Wilson, Gregory
10:35	**Panel Discussion**	
10:45	**Coffe Break**	
	Session II ***Middle of the Road – Abdominal MRA***	
	Chairs	**Catalano, Carlo** **Prince, Martin**
11:10	Whole-body MRA.	Balestriero, Giovanni
11:20	Advances in non-CE MRA.	Edelman, Robert

11:30	Comparison of doppler ultrasound, 4D flow and venography in assessment of transjugular portosystemic shunts.	Owen, Joseph
11:40	Effect of TIPS on portal and splanchnic arterial blood flow: a 4D flow MRI measurement at 3Tesla.	Stankovic, Zoran
11:50	Highly accelerated non-contrast enhanced MR-angiography of the renal arteries featuring sparse, incoherent sampling and L1-regulated iterative SENSE.	Ong, Melissa
12:00	Quantitative assessment of splenic hemodynamics at 4D flow MRI in the evaluation of thrombocytopenia: a pilot study in cirrhotic patients with portal hypertension.	Collins, Jeremy
12:10	Changes in portosystemic shunting in response to a meal challenge, in patients with portal hypertension.	Roldan-Alzate, Alejandro
12:20	Understanding the temporal performance of high frame rate 4D liver imaging techniques: a comparison between PROUD and TRACER.	Cooper, Mitch
12:30	Gadoxetate hepatic perfusion Index and hepatocyte phase homogeneity for quantitative analysis of liver fibrosis.	Boddhu, Srikanth
12:40	Assessment of renal haemodynamic response to renal denervation using dynamic contrast-enhanced magnetic resonance imaging.	Roditi, Gilles
12:50	**Panel Discussion**	
13:00	**Lunch Break**	

Session III
The Pipes – Plaque and Vessel Wall Imaging

	Chairs	**Parker, Dennis** **Botnar, Rene**
14:00	3D-black-blood 3T-MRI of the vessel wall and beyond: a clinical perspective.	Saam, Tobias
14:10	MR and ultrasound imaging of the effect of ivabradine on plaque size, biomechanics, and microvasculature in atherosclerotic rabbits.	van Hoof, Raf
14:20	Vessel wall analysis of intracranial main arteries using 3T MRI comparing with surgical observation.	Igase, Keiji
14:30	Plaque dynamics using 3D cine MERGE.	Parker, Dennis
14:40	Rapid semi-automatic carotid stenosis measurements.	De Marco, Kevin
14:50	Reproducibility of MRI of the aortic vessel wall: implications for prospective studies and therapeutic trials.	El Aïdi, Hamza
15:00	Techniques for 3D atherosclerotic plaque screening.	Yuan, Chun
15:10	Quantitative MR imaging of ex vivo intracranial atherosclerotic plaques at 7.0 tesla.	Harteveld, Anita
15:20	**Panel Discussion**	
15:30	**Coffee Break**	

Session IV
Down to the Toes – Peripheral Imaging

	Chairs	**Leiner, Tim** **Koktzoglou, Ioannis**
16:00	Three-station fluoroscopic tracking 3D bolus chase MRA with optimized accelerations.	Weavers, Paul
16:10	Mapping Lower Extremity Perforating Vessels Highly Accelerated 3D Contrast-Enhanced MRA.	Weavers, Paul
16:20	Quiescent-interval single-shot (QISS) MRA at 3 Tesla: use of adiabatic FOCI pulse to improve venous signal suppression.	Giri, Shivraman
16:30	Projection MR imaging of peripheral arterial calcifications.	Edelman, Robert
16:40	QISS MRA using a Fast Low Angle Shot Readout at 3 Tesla.	Edelman, Robert
16:50	Variable TR in ECG gated 3D single shot fast spin echo for non-contrast peripheral MRA at 3T.	Zhou, Xiangzhi
17:00	Subtractionless first-pass single contrast medium dose peripheral MR angiography using two-point Dixon fat suppression does not overestimate stenosis severity compared to digital subtraction angiography.	Habets, Jesse
17:10	Three-dimensional black-blood T1-weightet turbo spin-echo technique for the diagnosis of deep vein thrombosis: a viable alternative to contrast-enhanced MR imaging.	Treiti, Karla Maria
17:20	Frequent and widespread vascular abnormalities in human STAT3 deficiency detected by whole body MR and cardiac CT scan.	Azarine, Arshid
17:30	Highly accelerated dynamic contrast enhanced wrist imaging with CIRcular Cartesian UnderSampling (CIRCUS) acquisition: evaluation of perfusion in rheumatoid arthritis patients.	Liu, Jing
17:40	Automated reporting system for perforator flap MRA: OsiriX plugin.	Prince, Martin
17:50	**Panel Discussion**	
18:00	**End Session**	
18:30	**Busses to Centrale Monte Martini**	
19:00	**Centrale Montemartini Museum**	
20:15	**Dinner @ Flavio al Velavevodetto**	

Thursday September 18th

Time	Title	Speaker
	Session V	
	Technique – Inside the Sequences, not Just for Physicists	
	Chairs	**Galea, Nicola** **Wright, Graham**
08:00	Advances in cardiovascular DIXON MR	Kouwenhoven, Marc
08:10	Feasibility of PETRA quiet non-contrast-enhanced MR angiography.	Grodzki, David
08:20	Non-gadolinium CEMRA: early results with Ferumoxytol in children and adults.	Finn, Paul
08:30	Numerically optimized adiabatic RF pulses for robust and low-power cardiovascular MR imaging.	van Heeswijk, Ruud
08:40	3D radial bSSFP with off-resonant refocusing reconstruction for positive contrast imaging of SPIO labeled cells.	Stollberger, Rudolf
08:50	MR lymphangiography with vascular suppression using a combination of gadolinium and USPIO contrast.	Maki, Jeff
09:00	Respiratory motion suppression for free breathing three-dimensional, high isotropic spatial resolution, ultra short echo time (UTE) imaging of the lung.	Delacoste, Jean
09:10	Visualizing the arterial supply to the globes using a new fat suppression MRI sequence.	Yulin, Ge
09:20	Evaluation of MRI-based irreversible pressure drop estimation in stenotic flows.	Casas, Belen
09:30	Train velocity encoded phase contrast MR imaging for pulsatile velocity analysis with improved temporal resolution and velocity-to-noise ratio.	Lee, Whal
09:40	**Panel Discussion**	
	Poster Tantalizers	
	Chairs	**Carbone, Iacopo** **Panebianco, Valeria**
09:50	Black blood imaging with improved motion-sensitized driven equilibrium preparation in 3D turbo spin-echo sequence for the detection of brain metastases on 3T MRI.	Park, Dong Woo
09:51	Range of inversion time to null blood in 3D inversion prepared gradient echo.	Leung, General
09:52	Sliding time-of-flight: a method for high contrast angiography using sliding sampling scheme and dynamic reconstruction.	Choi, Joonsung
09:53	Comparison of pulmonary MR angiography with CT angiography in patients with acute pulmonary embolism, a pilot study.	Xia, Liming

09:54	Quantifying enhancement of M1 segment of middle cerebral artery: a potential marker for culprit middle cerebral artery.	Kim, Bum-soo
09:55	Preliminary Experience Using Gadofosveset Trisodium–Enhanced MRI to Detect Lower Gastrointestinal Bleeding.	Browne, William
09:56	In vitro models of the thoracic aorta with flexible and rigid vessel wall in comparison to in vivo data.	Lorenz, Ramona
09:57	Analysis methods of retrograde flow in volunteers and patients with aortic valve disease.	Lorenz, Ramona
09:58	Temporal lag reduction using bidirectional dynamic imaging reconstruction.	Deh, Koli
09:59	Motion Resisting Dynamic MR Imaging Aided by Kalman Filter and Catheter Tip Tracking.	Wang, Peng
10:00	Fast and Efficient Contrast-Enhanced MR Angiography with an Extended FOV in Giant Cell Arteritis.	Ludwig, Ute
10:01	Free Breathing Cine Fast Spin Echo of the Thoracic Aorta.	Boesen, Mari
10:02	An Improved Set-up for Coronary Endothelial Function Assessment with MR-Compatible Digital Isometric Handgrip and Real-Time Visual Feedback.	Nordio, Giovanna
10:03	MRA vs. DSA regarding exact PTA/STENT planning.	Aschauer, Manuela Adeline
10:10	**Coffee Break**	

Session VI
Carotid: On Our Way to the Brain

	Chairs	**Hadizadeh, Dariusch** **Van Heeswijk, Ruud**
10:40	Unenhanced arterial spin labeled MRA of carotid stenosis: a phantom study.	Koktzoglou, Ioannis
10:50	High resolution MRI and MR angiography of carotid bifurcation: evaluation of a new T1-weighted 3D turbo spin echo (T1-w 3D TSE) sequence.	Bros, Sebastien
11:00	Contrast-enhanced (CE) black blood (BB) MRI of carotid atherosclerosis by using motion sensitization driven equilibrium (MSDE) technique.	Kim, Seong-Eun
11:10	FID navigator for motion compensation in 3D black blood carotid MRI.	Haralsson, Henrik
11:20	Dual-Contrast ultra-short echo time Mra of the extracranial carotid arteries.	Edelman, Robert
11:30	Comparison of CAAS MRA with manual carotid artery segmentation: accuracy and reproducibility.	Aben, Jean-Paul
11:40	Accuracy of gadoteridol enhanced MR-angiography in the evaluation of carotid artery stenosis.	Zaccagna, Fulvio
11:50	Comparison of various dynamic contrast-enhanced MRI model parameters in carotid plaques: influence of analysis method and correlation with histology.	van Hoof, Raf
12:00	Gadolinium enhancement versus wall shear stress and oscillatory shear index in human carotid atherosclerosis by MRI and CFD.	Sigovan, Monica

12:10	Three-dimensional black-blood carotid wall imaging using flow-sensitive dephasing preparation and stack-of-stars trajectory.	Bi, Xiaoming
12:20	Longitudinal relaxation time and apparent diffusion coefficient for human carotid plaque segmentation at 3T with histological comparison.	Ota, Hideki
12:30	**Panel Discussion**	
12:40	**Lunch**	

Session VII
Inside the Brain Part I

	Chairs	**Bozzao, Alessandro** **Carr, James**
13:40	Highly accelerated brain time-of-flight MR angiography (HABA): towards practical compressed sensing MR applications.	Choi, Sangcheon
13:50	Time-of-flight with sparse undersampling (TOFu): fully integrated implementation on a standard clinical 3.0T MR scanner.	Natsuaki, Taka
14:00	Cerebral venous anatomy with susceptibility weighted imaging at 7T.	Ge, Yulin
14:10	MR Angiography of the perforating artery territorial infarction: basal ganglia versus thalamus.	Miki, Hitoshi
14:20	Accurate estimation of the volume flow rate in the cerebral artery using 3D cine phase-contrast MRI (4D flow).	Ito, Ryota
14:30	Comparing blood flow between brain hemispheres.	Frayne, Richard
14:40	Imaging lenticulostriate arteries at 3 tesla using flow-sensitive black-blood and hybrid of opposite-contrast MRA.	Li, Lyu
14:50	MRA/MRI – based computations of postoperative thrombosis in basilar aneurysms.	Rayz, Vitaly L.
15:00	Pushing the limits of spatial/temporal resolution in time-resolved intracranial CE MRA.	Velikina, Julia
15:10	**Panel Discussion**	
15:20	**Coffee Break**	

Session VIII
Inside the Brain Part II

	Chairs	**Hadizadeh, Daruisch** **Huston, John**
15:50	Flow patterns in the jugular vein: an MRI-based CFD analysis.	Kao, Evan
16:00	3D-black-blood 3.0T imaging for the detection of CNS vasculitis: a pilot study.	Kammer, Nora
16:10	In vivo quantification on aneurysm wall thickness and comparison with wall shear stress.	Zwanenburg, Jaco

16:20	Describing the angioarchitecture of brain AVMs: a challenge for MRAers.	Summers, Paul
16:30	High-speed, high-resolution whole-head contrast-enhanced MR angiography using sparse, incoherent sampling and iterative reconstruction.	Schmidt, Michaela
16:40	Subtraction MR venography from time-resolved MR angiography: Comparison with phase-contrast MR venography and contrast-enhanced MR venography.	Kim, Bum-soo
16:50	In vitro hemodynamic study of helical flow in the jugular using 4D PC-MRI.	Kefayati, Sarah
17:00	**Panel Discussion**	
17:10	**End Session**	
18:30	**Busses to Open Colonna**	
19:30	**Gala Dinner and Awards @ Open Colonna**	

Friday September 19th

Time	Title	Speaker
	Session IX ***The Big Ones – Aorta and Pulmonary***	
	Chairs	**Algeri, Emanuela** **Maki, Jeff**
08:00	Large coverage 3D black blood imaging of the aorta using 2D spatially selective excitation and a reduced field of view readout.	Mooiweer, Ronald
08:10	Aortic dimensions by magnetic resonance in COPD and emphysema: the multi-ethnic study of atherosclerosis – COPD Study.	Albini, Alessandra
08:20	Evaluation of bicuspid aortic valve fusion pattern and ascending aortic shape using routine 2D phase contrast cardiac MRI.	Burris, Nick
08:30	Aortic hemodynamics in BAV relatives with normal tricuspid aortic valves.	Schnell, Susanne
08:40	Differences in aortic hemodynamics after valve sparing aortic root replacement compared to aortic root replacement using bioprosthesis.	Collins, Jeremy
08:50	3D isotropic black blood MRI of abdominal aorta vessel wall using DANTE-SPACE.	Zhu, Chengcheng
09:00	Improved 'virtual injections' with 4D MR flow.	Loecher, Micheal
09:10	Power loss due to the observation of proximal helical and vortical aortic blood flow in healthy and ascending aneurym subjects.	Barker, Alex
09:20	Comparison of non-contrast enhanced navigator gated bSSFP and contrast enhanced MR angiography of the thoracic aorta.	van Kesteren, Floortje
09:30	The double bronchus sign: A new observation of occlusive pulmonary embolism at pulmonary MRA.	Schiebler, Mark
09:40	Comparison between gadobenate and gadofosveset for early steady-state ECG-triggered MRA of the aorta.	Maki, Jeff
09:50	Contrast-enhanced magnetic resonance angiography in management of pulmonary arterio-venous malformations in patients with HHT.	Schneider, Guenther
10:00	**Panel Discussion**	
10:10	**Coffee Break**	
	Session X ***Small but Mighty – Coronary and Flow***	
	Chairs	**Francone, Marco** **Li, Debiao**
10:40	Comparing non-rigid registration methods for motion-compensated reconstruction in free-breathing whole-heart coronary MRA.	Forman, Christoph
10:50	Free-running 4D whole-heart self-navigated golden angle MRI: initial results.	Coppo, Simone

11:00	A flexible time-resolved golden angle dual-inversion recovery acquisition to facilitate sequence timing in coronary vessel wall MRI.	Ginami, Giulia
11:10	A cylindrical 2D-T2-Prep improves GRAPPA-accelerated MRA of the right coronary artery.	Coristine, Andrew
11:20	Atlas-based 3D motion corrected self-navigated whole-heart coronary MRA using independent component analysis of individual coils for respiratory binning.	Bonanno, Gabriele
11:30	Retrospective data selection for improved whole-heart 3d radial self-navigated coronary MRA.	Chaptinel, Jerome
11:40	High-resolution coronary MR angiography with outer volume suppression.	Addy, Nii Okai
11:50	Coronary MR angiography in patients with coronary artery disease using image-based respiratory motion compensation: preliminary results.	Henningsson, Markus
12:00	Coronary endothelial function assessment using self-gated cardiac cine MRI and k-t sparse SENSE.	Yerly, Jerome
12:10	**Panel Discussion**	
12:20	**Lunch (Board Members Meeting @ Aula Silvano Zorzi)**	

Session XI
Getting to the Heart of the Matter Part I

	Chairs	**Masci, Piergiorgio** **Markl, Michel**
13:50	Diagnostic accuracy of stress myocardial perfusion imaging compared to invasive coronary angiography with fractional flow reserve: a meta-analysis.	Takx, Richard
14:00	Implementation of accelerated real-time CMR using sparse sampling with iterative SENSE reconstruction in patients and volunteers.	Carr, James
14:10	Age-related differences of right ventricular function detected by MR tissue phase mapping.	Menza, Marius
14:20	Manganese-enhanced MRI detects sustained engraftment and restorative potential of human placental stem cells after ischemic injury.	Phillip, Yang
14:30	Impact of microvascular obstruction on remote myocardial response in acute myocardial infarction.	Wright, Graham
14:40	Early non-invasive detection of myocardial damage in systemic sclerosis (SSc) using cardiovascular magnetic resonance.	Galea, Nicola
14:50	A semi-automatic method to map the extracellular volume fraction in the myocardium.	Altabella, Luisa
15:00	**Panel Discussion**	
15:10	**Coffee Break**	

Session XII
Getting to the Heart of the Matter Part II

	Chairs	**Carbone, Iacopo** **Stuber, Matthias**
15:40	Role of cardiovascular magnetic resonance in the evaluation of patients with hypertrophic cardiomyopathy phenotype: systematic comparison with endomyocardial biopsy.	Rosati, Riccardo
15:50	ECG and navigator-free 4D whole-heart coronary MRA for simultaneous visualization of cardiac anatomy and function.	Li, Debiao
16:00	Tetralogy of Fallot: right ventricular fibrosis quantification by cardiac magnetic resonance and correlation with clinical\functional data.	Noce, Vincenzo
16:10	Cardiac structure-function MRI in non-ischemic cardiomyopathy: regional changes in left ventricular extracellular volume fraction, velocities, scar and wall motion abnormalities.	Markl, Michael
16:20	Impact on pulmonary artery and aortic stroke volumes of a novel automatic valve tracking method using 4D flow MRI data.	Koehn, Dennis
16:30	Effects of background correction on regurgitant fraction and volume in the assessment of pulmonary regurgitation in repaired tetralogy of Fallot using phase contrast MR.	Gorter, Thomas
16:40	Evaluation of blood flow distribution asymmetry and vascular geometry in patients with fontan circulation using 4D flow MRI.	Jarvis, Kelly
16:50	**Panel Discussion**	
17:00	Presentation of Potchen Award	
17:10	Closing Remarks	
17:30	End Session	
18:15	**Busses to Teatro Centrale**	
19:00	**End of the Session Party @ Teatro Centrale**	

Committees and Volunteers

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Matthias Stuber – President, MRA Working Group, CIBM/CHUV/UNIL
Tim Leiner – Past-President, MRA Working Group, Utrecht University Medical Center
Jeff Maki – Treasurer/Secretary, MRA Working Group, University of Washington
Carlo Catalano – Chair, MRA Working Group, University of Roma
Iacopo Carbone – Program Director, MRA Working Group, University of Roma
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